

11 indirect comparisons). All the results were obtained from indirect comparison. Dutasteride, compared to finasteride, significantly improved AUA-SI score (WMD = 1.53), and influenced PSA concentration (WMD = -1.33). Average costs (including drugs costs, complications and prostatic cancer treatment) and effects (LY with no surgery/prostatic cancer) were per patient: dutasteride 5655 PLN/6.23 LY; finasteride 6081 PLN/5.13 LY. Dutasteride was dominant therapy compared with finasteride (more effective and less costly). **CONCLUSIONS:** Dutasteride is clinically more effective and more cost-effective in BPH compared to both placebo and finasteride.

## PIH6

#### ECONOMIC EVALUATION OF CARBETOCINE FOR THE PREVENTION OF UTERINE ATONY IN PATIENTS WITH RISK FACTORS IN MEXICO

Del Angel-García G<sup>1</sup>, García-Contreras F<sup>2</sup>, Constantino-Casas P<sup>2</sup>, Nevarez-Sida A<sup>2</sup>, Lopez-Gonzalez N<sup>3</sup>, García-Constantino M<sup>1</sup>, Zuñiga M<sup>3</sup>

<sup>1</sup>Instituto Mexicano del Seguro Social, México City, Mexico City, Mexico, <sup>2</sup>Mexican Institute of Social Security, México, Distrito Federal, Mexico, <sup>3</sup>Mexican Institute of Social Security, México City, Mexico City, Mexico

**OBJECTIVE:** To evaluate the cost-effectiveness of IMSS formulary drugs for preventing uterine atony in patients with risk factors. **METHODS:** A final report of a randomized pragmatic clinical trial at the Mexican Institute of Social Security (IMSS) is presented. Carbetocine and oxytocin are the only drugs within IMSS formulary for preventing uterine atony. Risk factor included fetal macrosomia, polyhydramnios, low insertion of the placenta, multiple gestation, prolonged labor, uterine myomas and chorioamnionitis. The effectiveness was defined as the reduction of the number of patients with uterine atony. The use of resources was obtained from the clinical trial and the costs were gotten from financial information from IMSS, and are expressed in US 2006 dollars. Squared *ji* and U de Mann Whitney test were used. Univariate and probabilistic sensitivity analyses, a Monte Carlo microsimulation with 10,000 iterations was performed using probability distribution data from the clinical trial. A 95% confidence interval of ICER was calculated by ellipse method. **RESULTS:** Seventy-seven patients received carbetocine and 75 oxytocin. Both groups had similar obstetrics and sociodemographic characteristics. Uterine atony was reported in 19% in the oxytocin group compared to 8% in the carbetocine one ( $p < 0.0001$ ). Multiple gestation was the most frequent diagnosis, 35% ( $p < 0.0001$ ). Bleeding was less than 500 mL in the carbetocine group and 500–1000 mL in the oxytocin one ( $p < 0.0001$ ). Mean cost per patient treated with carbetocine was \$3525 vs. \$4054 for oxytocine ( $p < 0.0001$ ). Mean cost-effectiveness ratio for oxytocin was \$4944, while for carbetocine \$3874; ICER showed that carbetocine was dominant. Univariate analysis supported those results. The acceptability curve and health net benefits showed that carbetocine group was superior independently of WTP. CI 99% by ellipse method showed that carbetocine was dominant in 100% of cases. **CONCLUSIONS:** Carbetocine was dominant in preventing uterine atony in patients with risk factors.

## PIH7

#### COST-EFFECTIVENESS OF SINGLE-EMBRYO-TRANSFER (SET) VERSUS DOUBLE-EMBRYO-TRANSFER (DET) STRATEGIES IN IN-VITRO FERTILIZATION

Poulsen PB<sup>1</sup>, Ingerslev HJ<sup>2</sup>, Kesmodel U<sup>3</sup>, Højgaard A<sup>4</sup>, Pinborg A<sup>5</sup>, Henriksen TB<sup>6</sup>, Ottosen LD<sup>4</sup>

<sup>1</sup>MUUSMANN Research & Consulting AS, Kolding, Denmark, <sup>2</sup>Fertility Clinic, Aarhus University Hospital, Århus N, Denmark, <sup>3</sup>Institute of Epidemiology and Social Medicine, University of Aarhus, Aarhus, Denmark, <sup>4</sup>Fertility Clinic, Aarhus University Hospital, Aarhus N, Denmark, <sup>5</sup>Fertility Clinic, Rigshospitalet, Copenhagen, Denmark, <sup>6</sup>Department of Paediatrics, Aarhus University Hospital, Aarhus N, Denmark

**OBJECTIVE:** As part of a health technology assessment comparing a single-embryo-transfer (SET) in In-Vitro Fertilization (IVF) with the traditional double-embryo-transfer (DET) used today in Denmark the cost-effectiveness of SET was compared with DET. The aim was to inform decision-makers about the economic consequences of the eventual adoption of a SET policy in Denmark. **METHODS:** The analysis was based on prospective collection of resource use and costs of singletons and twins. A total of 213 pregnant women at the fertility clinic have been reporting resource use (health care and so-cial sector), and days absent from work in cost diaries during a year (from pregnancy scan to until three months after delivery). Clinical effectiveness data of SET and DET came from a Scandinavian multi-center trial, and a recent Cochrane review. **RESULTS:** The advantage of SET is delivery of few expensive twins compared with DET (25%). The cost-effectiveness per clinical pregnancy of DET (DKK 115,321 per clinical pregnancy and DKK 120,934 per delivery) was lower than using that of SET (DKK 131,446 per clinical pregnancy and DKK 149,833 per delivery). The cost-effectiveness of DET is explained by a higher clinical pregnancy rate, a higher rate of delivery, and more children born. However, DET is also a more expensive alternative for the average patient treated, because of higher costs for delivery and neonatal care. The extra cost per patient using DET is around DKK 82,000 per delivery and around DKK 50,000 per extra child born using DET. **CONCLUSION:** The cost per delivery and per child born is lower using DET compared with SET. However, the total costs for DET is higher due to higher antenatal, delivery and neonatal costs, as well as production loss. A higher rate of twin deliveries using DET explains this. These extra costs using the more effective DET policy are moderate.

## PIH8

#### PROPORTION OF HERPES ZOSTER (HZ) PATIENTS DEVELOPING POST-HERPETIC NEURALGIA (PHN) AND ITS MANAGEMENT IN THE UK

Gauthier A<sup>1</sup>, Remy V<sup>2</sup>, Martin M<sup>1</sup>, Pedalino B<sup>2</sup>

<sup>1</sup>i3 Innovus, Uxbridge, Middlesex, UK, <sup>2</sup>Sanofi Pasteur MSD, Lyon, France

Quantitative information on the management of PHN, a complication of HZ, is scarce, with the most recent data from 1975. With the imminent arrival of a prophylactic Zoster vaccine, it is important to document the burden of PHN in the UK. **OBJECTIVES:** To estimate the proportion of HZ patients developing PHN, the duration, resource use and costs of PHN sufferers, using two definitions: pain persisting one (1-month definition) or three months (3-month definition) after HZ onset. **METHODS:** Records of immuno-competent individuals of  $\geq 50$  years, diagnosed with HZ between 2000 and 2005, and with  $\geq 1$ -year follow-up were selected from the UK General Practice Research Database (GPRD). PHN episodes were identified by formal diagnosis and prescriptions of typical neuropathic pain medications.

Duration was estimated from the number of treatment days per patient. Resource use (medications, physicians visits, referrals [excluding hospitalisations]) were retrieved from patients' medical records. Economic analyses were performed to estimate the average direct cost of PHN management from the National Health Service (NHS) perspective. **RESULTS:** 25,002 patients with HZ were included in the analyses. Mean age was 67.9 years, 61.1% were females. One-month definition: 19.5% (95%CI 19.0%; 20.0%) of patients developed PHN, 65.4% were females; mean age was 71.2 years. Three-month definition: 13.7% (95%CI 13.2%; 14.1%) of patients developed PHN, 66.6% were females; mean age was 71.1 years. The mean PHN duration was 7.5 and 9.0 months using the 1 and 3-month definitions respectively. The mean direct cost of PHN management per episode was £284.38 and £340.04 for the NHS (1 and 3-months definitions) increasing with severity (mild: £166.62, moderate: £317.97, severe: £519.62 for the 1-month definition). **CONCLUSION:** This study confirms that PHN episodes remain frequent and costly sequelae of HZ. Therefore, the future implementation of a prophylactic Zoster vaccine is expected to significantly decrease the economic burden of PHN.

PIH9

#### THE ECONOMIC BURDEN OF DRUGS FOR CHILDREN CARE IN GENERAL PRACTICE: AN OBSERVATIONAL STUDY IN FRANCE

Pelletier-Fleury N<sup>1</sup>, Le Vaillant M<sup>2</sup>, Rosman S<sup>3</sup>, Franc C<sup>3</sup>

<sup>1</sup>Cermes, Inserm U750 (National Institute of Health and Medical Research), Le Kremlin Bicêtre, France, <sup>2</sup>Cermes, Inserm U750 (National Institute of Health and Medical Research), Le Kremlin Bicêtre, France, <sup>3</sup>Cermes, Inserm U 750 (National Institute of Health and Medical Research), Le Kremlin Bicêtre, France

In France, children represent about 15% of GPs' consultations. The reasons for the doctor-child encounter have not yet been extensively studied, and no research gave insights into the economic burden of children care in general practice. **OBJECTIVES:** This study aimed to: 1/ provide a descriptive analysis of the main reasons for encounter, 2/ to examine the breakdown of the cost of drugs prescribed and 3/ to estimate the economic burden of drugs for children care in general practice in 2003 (the prevalence method was used). **METHODS:** We carried out an observational study in a representative sample of 922 French GPs (BKL-Thalès® panel). We observed 60 consecutive visits per doctor and registered data concerning all the children's visits during this period of time. Patients' demographics, reasons for encounter and related treatments were collected directly during the consultation (patient management software). **RESULTS:** A total of 6652 consultations out of 50,848 (13.08%) concerned children (up to 15 years old). They were on average  $6.8 \pm 4.3$  years old (29.2% were 3 or less), 52.1% were males, 11.1% of them consulted the GP for the first time, only 1.3% had a chronic illness. The main reasons for encounter were respiratory tract infections in 54.8% of cases, vaccination or routine exam and prevention in 13.6%, abdominal complaint in 4.3% and dermatosis in 4.1%. The top 3 of the cost of drugs prescribed was: antibiotics with 21.7% of the costs (€12,652 in the sample), local treatment for URTI with 19.9% (€11,575) and vaccines with 11.8% (€6898). The economic burden of drugs for children care in general practice was estimated at €179.6 million for the year 2003. **CONCLUSION:** We identified an area of high expenditure where inefficiencies may exist and saving be made; this remains to be explored.

#### SERVICE UTILIZATION AND HEALTH CARE COSTS OF THE ELDERLY POPULATION IN GERMANY

Heinrich S, Lupp M, Angermeyer MC, Riedel-Heller SG, Koenig HH

University of Leipzig, Leipzig, Saxony, Germany

**OBJECTIVES:** Due to future demographic change health policy has to focus on elderly people. The aim of this study was to measure service utilization and direct health care costs and its predictors for the age group 75+ in Germany from the societal perspective. **METHODS:** A bottom-up costing study was conducted using a representative cross-sectional population sample. Study subjects (N = 452) were recruited through 20 general practitioners in Saxony. The main instrument was a questionnaire of service utilization and costs administered by an interviewer. The Chronic-Disease-Score (CDS) was calculated based on reported drug utilization. Predictors were derived by multivariate regression models. **RESULTS:** Study subjects caused average direct health care costs of EUR 3868 in 2004. This included: inpatient treatment 36%, pharmaceuticals 28%, outpatient services 14%, home care 9%, medical supply and dentures 6%, nonphysician providers 4%, assisted living 1% and transport 2%. Female gender, a higher level of vocational training and a higher CDS were predictors of higher total costs. Age and family status had no significant influence. Within the 3 month preceding the interview study subjects utilized at least once: pharmaceuticals 98%, outpatient services 98%, nonphysician providers 29%, home care (12 months) 23%, inpatient treatment (6 months) 18%, medical supply and dentures 16%, assisted living (6 months) 4% and transport 54%. 54% of the study subjects accounted for 90% of total costs. **CONCLUSIONS:** Elderly people in the age group 75+ cause substantial direct health care costs in particular for inpatient care and pharmaceuticals. Measured costs are almost twice as high as the average expenses paid per insured person by compulsory sickness funds and long-term care insurance in 2004, in Germany. Further research should focus on heavy users, thereby concentrating on the two main cost categories, which account for 64% of the average direct costs.

PIH11

#### EXPENDITURES ON PHARMACEUTICALS: DEMOGRAPHIC CHANGE AND INNOVATION—AN EMPIRICAL ANALYSIS

Ilgün Y, Eisen R

Johann Wolfgang Goethe University, Frankfurt, Germany

**OBJECTIVES:** Several studies forecasting health care expenditures (HCE) predict continuously increasing expenses due to at least three factors: ageing, technical progress, and prices. The aim of this study is to identify the effects of selected influencing factors on the expenditures of prescribed drugs (EPD), e.g. the share of 65 aged and older (POP65), doctors' consultations (DOC), and R&D expenditures of pharmaceutical industry (PHARM\_R&D). As EPD have grown faster than any other major components of HCE since the late 1990s, cross-national differences in pharmaceutical expenditures are of great interest. **METHODS:** With panel data of seven countries (Australia, Canada, Finland, France, Germany, Japan, and US) from 1991 to 2001 a dynamic panel estimator, namely the first-differenced General Method of Moments (GMM) has been applied to test the following hypotheses. If POP65 as well as DOC, and PHARM\_R&D increase, then EPD will increase. If the rest life expectancy at age 65 (LIFEXP65) as well as PHARM\_R&D increase, then innovations instrumented as patent applications (PAT\_AP) will increase. **RESULTS:** The one-period lagged EPD (0.646; 99%CI) was highly significant, POP65 (0.018; 90%CI) and DOC (-0.024; 95%CI) were significant, and PHARM\_R&D was marginally significant